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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,439	09/17/2001	Erwin Knieling		2918

7590

09/24/2004

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EXAMINER
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CHORBAJI, MONZER R

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/889,439	<b>Applicant(s)</b> KNIELING ET AL.	
	<b>Examiner</b> MONZER R CHORBAJI	<b>Art Unit</b> 1744	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 September 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>7/12/2001</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 1, 4-5, 12-16 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143).

With respect to claims 1 and 13, the admitted state of the art on page 1, lines 4-10 of the specification teaches that it is known in the art to sterilize packaging containers by diffusing hydrogen peroxide and steam vapor mixture onto the containers through a mixing nozzle (is equivalent to a two-substance nozzle on page 1, lines 4-5). Page 1, lines 4-5, teaches that the hydrogen peroxide/steam is first formed then is led through a mixing nozzle and is heated in a heating chamber. Then, the heated mixture is fed through a pipe to a sterilization chamber containing packaging containers. It is inherent in the disclosed state of the art that the hydrogen peroxide vapor and the steam are generated from separate sources. It is also inherent that both steam and hydrogen peroxide vapor are fed simultaneously (is equivalent to the hydrogen peroxide mixture) into the mixing nozzle in order to form the appropriate mixture. In addition, it is inherent to heat aqueous hydrogen peroxide so that it changes from liquid to gaseous state. Page 1, lines 8-10, teaches that it is known to remove the heated disinfectant by using hot air. Moreover, on page 1, lines 6-7, the disclosed state of the art indicates that containers are moved through the chamber such that it is inherent to use a conveyor means for such a purpose. However, the disclosed state of the art fails to teach aiming directly the mixture onto a packaging container and the use of valves to dispense steam and hydrogen peroxide. The ('143) reference, which is in the art of treating bottles (col.1, lines 6-8), teaches aiming directly the mixture onto bottles (figure 3) and also teaches the use of dispensing valves (figure 2, 28-30). Thus, it would have been obvious to one having ordinary skill in the art to modify the admitted state of the art by adding valves to the sources of the steam and hydrogen peroxide in order to

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simultaneously close and open the valves so that the proper volume of each disinfectant is set depending on the degree of treatment needed as taught by the ('143) reference (col.3, lines 52-56).

With respect to claims 4-5, the ('143) reference teaches atomizing a disinfectant at room temperature (no disinfectant heating means are provided for the pretreatment installation) and also the bottles are maintained at room temperature (no chamber heating means are provided for the pretreatment installation).

With respect to claims 12, 15-16 and 21, the ('143) reference teaches the following: blowing the disinfectant directly into the interior of the bottles (figure 3), moving the bottles in an upright position and in a horizontal direction and nozzles are directed vertically downward onto the bottles (figure 2, 2 and 9-11).

With respect to claim 14, the admitted state of the art on page 1, lines 4-5 of the specification teach that it is known in the art to use a two-substance nozzle.

5. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143) and further in view of Pflug et al (U.S.P.N. 5,525,295).

With respect to claim 2, both the disclosed state of the art and the ('143) reference fail to teach mixing ratios for steam and hydrogen peroxide, however; the ('295) reference, which is in the art of sterilizing surfaces with mixed steam and hydrogen peroxide vapor, teaches (col.8, lines 1-15) that the concentration of hydrogen peroxide in steam is a broad range and further discloses various recommended hydrogen peroxide values. Thus, it would have been obvious to one having ordinary skill

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in the art at the time the invention was made to modify the admitted state of the art by choosing certain mixing ratios for steam and hydrogen peroxide vapor such that choosing a mixing ratio is a matter of routine experimentation.

6. Claims 3 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143) and further in view of Taggart et al (U.S.P.N. 6,702,985).

With respect to claims 3 and 6-8, both the disclosed state of the art and the ('143) reference fail to teach the following: steam's pressure and temperature, use of an aqueous solution of hydrogen peroxide and peracetic acid, spraying time from approximately one to two seconds, and the time of action of the mixture is approximately five to ten seconds. The ('985) reference discloses the following: steam's pressure and temperature (col.14, lines 1-6), use of an aqueous solution of hydrogen peroxide and peracetic acid (col.5, lines 1-3), spraying time from approximately one to two seconds (col.13, 8-10) and the time of action of the mixture is approximately five to ten seconds (col.13, lines 19-25). As a result, it would have been obvious to one having ordinary skill in the art to modify the admitted state of the art by choosing various time and temperature intervals as taught by the ('985) reference since such intervals depends on the type of foodstuff in order to meet the aseptic FDA standard (col.13, lines 22-25).

7. Claims 10-11 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143) and further in view of Kronseder (U.S.P.N. 5,598,859).

With respect to claims 10-11 and 17-19, both the admitted state of the art and the ('143) reference fail to teach the following: bottle and mixing nozzle are held immobile while the mixture is blown onto the bottle, bottle and mixing nozzle move together in a continuous translation motion while the mixture is blown onto the bottle, nozzles move with the conveyor, a rotor with several holders such that at least one mixing nozzle above each holder and dispensing valves associated with mixing nozzles are arranged on the conveyor and connected with intercalation of a rotating distributor. The ('859) reference, which is in the art of treating bottles, teaches the following: bottle and nozzle are held immobile while the disinfectant is blown onto the bottle (col.2, lines 45-48), bottle and nozzle move together in a continuous translation motion while the disinfectant is blown onto the bottle (col.5, lines 20-26), nozzles move with the conveyor (figure 1, 2 and 6), a rotor (figure 1, 2) with several holders (figure 2, 24) such that at least one nozzle above each holder (figure 2, 6) and dispensing valves (col.2, lines 47-50) associated with mixing nozzles are arranged on the conveyor and connected with intercalation of a rotating distributor (col.2, lines 44-48). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the admitted state of the art by using grippers for holding bottles as taught in the ('859) reference in order to lower the cost of manufacturing grippers used in bottle cleaning machines (col.1, lines 46-51).

8. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143) and further in view of Gudz et al (U.S.P.N. 3,739,790).

With respect to claim 9, both the disclosed state of the art and the ('143) reference fail to teach using liquid disinfectant as means to remove condensate formed on bottles, but the disclosed state on page 1, lines 8-10 teaches using hot air to remove condensate. The ('790) reference, which is in the art of washing containers, teaches rinsing containers with hot water (hot water is equivalent to liquid disinfectant) in col.8, lines 14-16. Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the admitted state of the art by substituting hot water for hot air as taught by the ('790) reference since such a substitution is a matter of design choice of the artisan.

9 Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted state of the art in view of Schmidt (U.S.P.N. 5,957,143) and further in view of Taggart et al (U.S.P.N. 6,702,985) and Rouillard (U.S.P.N. 5,849,095).

With respect to claim 20, the admitted state of the art, the ('143) reference and the ('985) reference all fail to teach including a surfactant to the disinfectant, however; the ('095) reference, which is in the art of treating bottles, teaches adding a surfactant to a washing solution (col.2, lines 61-62). Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the admitted state of the art by adding a surfactant as taught by the ('095) reference in order to provide an effective bottle washing solution which minimizes etching of the glass (col.3, lines 1-3).

### **Conclusion**



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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MONZER R CHORBAJI whose telephone number is (571) 272-1271. The examiner can normally be reached on M-F 6:30-3:00.

11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, ROBERT J WARDEN can be reached on (571) 272-1281. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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